UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,022	01/26/2004	James Martinolich	CHYRON 3.0-023	1297

530 7590 10/18/2007

LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK
600 SOUTH AVENUE WEST
WESTFIELD, NJ 07090

EXAMINER	
LIN, JASON K	

ART UNIT	PAPER NUMBER
2623	

MAIL DATE	DELIVERY MODE
10/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/765,022	MARTINOLICH ET AL.	
	Examiner	Art Unit	
	Jason K. Lin	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20 and 22-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20 and 22-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to application No. 10/765,022 filed on 07/16/2007. **Claim 21** is cancelled and **Claims 1-20 and 22-34** are pending and have been examined.

Response to Arguments

2. Applicant's arguments with respect to **claims 1-20 and 22-34** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1 and 2** are rejected under 35 U.S.C. 102(b) as being anticipated by SRINIVASAN et al. (US 2001/0023436).

Consider **claim 1**, SRINIVASAN teaches a method of processing an input video signal (Fig. 1), including the step of embedding graphics metadata into the video signal (Paragraph 0091), wherein the graphics metadata includes at least alphanumeric content data which is distinct

from any style and format data (Paragraph 0085, 0089), and the graphics metadata at least partially defines one or more graphics to the video signal so as to provide a processed video signal (Parts referred to pertain to Fig. 1. Paragraph 0047-0051 teaches an authoring station 11 that can process various media [analog or digital] streams. The video source 12 can be prerecorded video or live broadcast video. Authoring station serves the purpose of providing tracking data of a particular image entity that is to be tracked. The output video stream contains the original stream plus the synchronous data stream corresponding to the frame-by-frame coordinates of the track image entity [graphics metadata] resulting in a processed video signal. Paragraph 0085 and 0089 also teaches in addition tracking, additional annotations such as icons, graphics, text, etc [graphics metadata] are added. Paragraph 0091 also teaches that the annotation data stream which is the synchronous data stream is embedded in the video stream via VBI in an analog video stream or private data in a MPEG2 digital video stream [processed video signal]).

Consider **claim 2**, SRINIVASAN teaches wherein said input video signal includes pixel data and said processed video signal includes all of the pixel data in said input video (Part numbers refer to Fig. 8. Paragraph 0090 teaches that annotation streams and video streams may be combined before being delivered to broadcast system after authoring [processed vide signal]. Paragraph 0095 teaches that after authoring is

performed by station 61a-d, the video stream remains unchanged for the most part. Paragraph 0098 also teaches that the video stream 53 that is output from the system 51 remains essentially unchanged from the video that is input into the system, stream 49. Therefore, since the input video is unchanged, it contains the pixel data that it previously had when inputted into the authoring system).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1, 4, 6-27, and 31-33** under 35 U.S.C. 103(a) as being unpatentable over Vienneau et al. (2002/0157105) in view of Ramaswamy (US 2004/0003394).

Consider **claim 1**, Vienneau teaches a method of processing an input video signal (Fig. 2), including the step of adding graphics metadata into the video signal, wherein the graphics metadata includes at least alphanumeric content data which is distinct from any style and format data (Fig.39; Paragraph 0116-0117, 0123 teaches alphanumeric content data), and the graphics metadata at least partially defines one or more graphics to the video signal so as to provide a processed video signal (Graphics

metadata is specified by the animator at the broadcasting station 101 shown in Fig.1 as taught in paragraphs 0058, 0059, and 0065. Paragraph 0102 and 0105 teaches that second metadata 722 shown on Fig. 7 contains metadata specifying the second graphic parameters for use by the distributor. The second metadata is stored for transmission along with the broadcast from broadcaster 101 shown in Fig. 1. Paragraph 0105 teaches that the broadcast and metadata files received by the distributor 103 shown in Fig. 1 demodulates signals from the broadcaster. Since paragraph 0102 teaches that second metadata file is stored for transmission along with the broadcast, second metadata file and video broadcast data are sent together [processed video signal] to the distributor).

Vienneau does not explicitly teach embedding metadata into a video signal.

In an analogous art Ramaswamy teaches, embedding metadata into a video signal (Paragraph 0019, 022, 0027-0028 teaches embedding metadata into video).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Vienneau's system to include embedding metadata into a video signal, as taught by Ramaswamy, for the advantage of providing a processed signal containing metadata and a video signal that can be indexed (Ramaswamy - Paragraph 0008), and providing a video with their associated metadata in a more concise and organized fashion.

Consider **claim 22**, Vienneau teaches a method of treating a processed video signal including pixel data and graphics metadata (Paragraph 0106 teaches combining the broadcast image data [an image is composed of pixels, image data is pixel data] with rendered animation objects at the distribution side. Paragraph 0102 teaches that second metadata file is stored for transmission along with the broadcast, second metadata file and video broadcast data are sent together [processed video signal] to the distributor. Paragraph 0105 teaches that broadcast signals are received from the broadcaster and demodulated at the receiver located at the distributor) comprising reading graphics metadata that has been added into the video signal and includes at least alphanumeric content data which is distinct from any style and format data (Fig.39; Paragraph 0116-0117, 0123 teaches alphanumeric content data), and inserting pixel data constituting graphics into the processed video signal so as to form a final signal incorporating one or more visible graphics, said inserted pixel data being based at least in part on the graphics metadata in said processed video signal (Paragraph 0105 teaches receiving the broadcast signal [processed video signal] and demodulating the signal for metafiles, cues, etc. with receiver 2802 shown in Fig. 29. Paragraph 0106 teaches combining the broadcast image data with the rendered broadcast image data defined by metadata 922 and executable graphic file 912. The graphics specified by second metadata 922 is rendered along with broadcast image data [inserting pixel data]. In addition to the rendering

further data is received and encoded by the graphics processor along with the newly generated image data [processes video signal with pixel data inserted] and sent to the cable transmitter 2809 [final signal with one or more visible graphics]).

Vienneau does not explicitly teach embedding metadata into a video signal.

In an analogous art Ramaswamy teaches, embedding metadata into a video signal (Paragraph 0019; 022, 0027-0028 teaches embedding metadata into video).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Vienneau's system to include embedding metadata into a video signal, as taught by Ramaswamy, for the advantage of providing a processed signal containing metadata and a video signal that can be indexed (Ramaswamy - Paragraph 0008), and providing a video with their associated metadata in a more concise and organized fashion.

Consider **claim 26**, Vienneau teaches a video processing system (Fig. 2, Fig. 3, Fig. 19, Fig. 25) having:

(a) an input for receiving an input video signal (Paragraph 0089 teaches that the processing system 1901 shown in Fig. 19 receives video input signals from 1906);

(b) a character generator subsystem connected to said input (Fig. 2 shows an Animation Design 201 connected to the TV studio via internet.

The character generator subsystem is taken to be the Animation Design 201, TV Studio 204, and Broadcast transmitter. Animation Design 201 is connected to input through Ethernet means shown in Fig. 24 as provided by processing system 1901 in Fig. 19), said character generator subsystem being operative to provide graphics metadata defining one or more graphics and add said graphics metadata into the input video signal so as to provide a processed video signal (Graphics metadata is specified by the animator at the Animation Design 201 shown in Fig. 2 as taught in paragraphs 0058, 0059, and 0065. Paragraph 0102 and 0105 teaches that second metadata 722 shown on Fig. 7 contains metadata specifying the second graphic parameters for use by the distributor, and third metadata 723. The second and third metadata is stored for transmission along with the broadcast from broadcaster 101 shown in Fig. 1. Paragraph 0105 teaches that the broadcast and metadata files received by the distributor 103 shown in Fig. 1 demodulates signals from the broadcaster. Since paragraph 0102 teaches that second and third metadata file is stored for transmission along with the broadcast, second and third metadata file and video broadcast data are sent together [processed video signal] to the distributor), wherein the graphics metadata includes at least alphanumeric content data which is distinct from any style and format data (Fig.39; Paragraph 0116-0117, 0123 teaches alphanumeric content data); and

(c) a processed signal output connected to said character generator subsystem (Paragraph 0102 teaches second metadata is stored for transmission along with the broadcast from broadcaster 101 shown in Fig. 1. Paragraph 0105 teaches that the broadcast and metadata files received by the distributor 103 shown in Fig. 1 demodulates signals from the broadcaster. Since paragraph 0102 teaches that second metadata file is stored for transmission along with the broadcast, second metadata file and video broadcast data are sent together [processed video signal] to the distributor. This processed signal output is connected to the character generator subsystem made up of Animation Design 201 and TV Studio 204 shown in Fig. 2. This processed signal is sent to the broadcast transmitter 205 to be sent to the distributor).

Vienneau does not explicitly teach embedding metadata into a video signal.

In an analogous art Ramaswamy teaches, embedding metadata into a video signal (Paragraph 0019, 022, 0027-0028 teaches embedding metadata into video).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Vienneau's system to include embedding metadata into a video signal, as taught by Ramaswamy, for the advantage of providing a processed signal containing metadata and a video signal that can be indexed (Ramaswamy - Paragraph 0008), and providing a video with their associated metadata in a more concise and organized fashion.

Consider **claim 4**, Vienneau and Ramaswamy teach wherein the video signal is a serial digital video signal (Vienneau - Paragraph 0100 teaches receiving video input signal as a serial data) and the graphics metadata is in accordance with MPEG-7 standards (Vienneau - Paragraph 0111-0112 teaches second metadata is in the form of XML. XML is used by MPEG-7 for the textual representation of content description. Graphic data specified in second metadata is in the form of XML written in the same format as that shown in Fig. 10 and Fig. 11).

Consider **claim 6**, Vienneau and Ramaswamy teach wherein said embedding step is performed using a character generator subsystem operated by a human operator and the operator at least partially controls the graphics metadata embedded into to the video signal (Vienneau - Paragraph 0055 - 0058 teaches a how a human operator[s] may collaborate together to design the animation and metadata that defines how the particular graphics can be used. Paragraph 0058 teaches that this metadata can also include a second metadata that is defined for use by the distributor. The second metadata [graphics metadata] is added to the video signal as taught in paragraph 0102 and 0105 since the second metadata is transmitted along with the broadcast and is demodulated by the receiver at the distributor side. The character generator subsystem is taken to be the Animation Design 201, TV Studio 204, and Broadcast transmitter 205 as shown in Fig. 2, where the graphics metadata is

specified by the Animation Design studio and sent to the TV Studio to be transmitted along with the broadcast. Ramaswamy - Paragraph 0019, 022, 0027-0028 teaches embedding metadata into a video).

Consider **claim 7**, Vienneau and Ramaswamy teach wherein the character generator subsystem is operated by a combination of a human operator and an automated computer system (Vienneau - Paragraph 0054 - 0058 teaches a how a human operator[s] may collaborate together to design the animation and metadata that defines how the particular graphics can be used. The software that is used to design graphics and graphics metadata is defined largely in part by data structures and defining instructions that enable the user to create and modify animations. Therefore, part of the design process is automated along with human design facilitating the creation of the animation and their corresponding metadata. Paragraph 0058 teaches that this metadata can also include a second metadata that is defined for use by the distributor. The second metadata [graphics metadata] is added to the video signal as taught in paragraph 0102 and 0105 since the second metadata is transmitted along with the broadcast and is demodulated by the receiver at the distributor side. The character generator subsystem is taken to be the Animation Design 201, TV Studio 204, and Broadcast transmitter 205 as shown in Fig. 2 where the graphics metadata is specified by the Animation Design

studio and sent to the TV Studio to be transmitted along with the broadcast).

Consider **claim 8**, Vienneau and Ramaswamy teach wherein said embedding step is performed using a character generator subsystem operated under the control of an automated computer system (Vienneau - The second metadata [graphics metadata] is added to the video signal as taught in paragraph 0102 and 0105 since the second metadata is transmitted along with the broadcast and is demodulated by the receiver at the distributor side. The character generator subsystem is taken to be the TV Studio 204, and Broadcast transmitter 205 as shown in Fig. 2 where the predefined set of second graphics metadata is already stored at the TV Studio and transmitted along with the broadcast. Since both second graphics metadata and broadcast is sent together to the distributor [second graphics metadata is unlocked only for the distributor and not modified by the broadcaster as taught in paragraph 0065], both types of data must be combined automatically before transmission via the Broadcast transmitter. Ramaswamy - Paragraph 0019, 022, 0027-0028 teaches embedding metadata into a video).

Consider **claim 9**, Vienneau and Ramaswamy teach further comprising reading the graphics metadata in said processed video signal and inserting pixel data constituting graphics into the processed video

signal so as to form a final signal incorporating one or more visible graphics, said inserted pixel data being based at least in part on the graphics metadata in said processed video signal (Vienneau - Paragraph 0105 teaches receiving the broadcast signal [processed video signal] and demodulating the signal for metafiles, cues, etc. with receiver 2802 shown in Fig. 29. Paragraph 0106 teaches combining the broadcast image data with the rendered broadcast image data defined by metadata 922 and executable graphic file 912. The graphics specified by second metadata 922 is rendered along with broadcast image data [inserting pixel data]. In addition to the rendering further data is received and encoded by the graphics processor along with the newly generated image data [processes video signal with pixel data inserted] and sent to the cable transmitter 2809 [final signal with one or more visible graphics]).

Consider **claim 10**, Vienneau and Ramaswamy teach wherein said step of embedding graphics metadata is performed in a first video production system under the control of a first entity (Vienneau - Paragraph 0102 teaches storing second metadata for transmission along with the broadcast. Second metadata is graphics metadata defined for use by the distributor as taught in 0065. Metadata and broadcast image data is sent together from the Broadcaster 101 [first entity] shown in Fig. 1 as taught in paragraph 0105 [distributor 103 shown in Fig. 1 receiving broadcast signals from the broadcaster 101]. Ramaswamy - Paragraph 0019, 022,

0027-0028 teaches embedding metadata into a video) and said reading and inserting steps are performed in a second video system under the control of a second entity different from said first entity (Paragraph 0106 teaches combining the broadcast image data with the rendered broadcast image data defined by metadata 922 and executable graphic file 912. The graphics specified by second metadata 922 is rendered along with broadcast image data [inserting pixel data]. These steps are performed by parts found in Fig. 29, all of which makes up a part of the distributor 103 [second entity] shown in Fig. 1), the method further comprising the step of transmitting the processed video signal from said first video production system to said second video production system (Paragraph 0105 teaches distributor 103 [second entity] receiving broadcast signals from the broadcaster 101 [first entity] shown in Fig. 1).

Consider **claim 11**, Vienneau and Ramaswamy teach wherein said step of embedding graphics metadata is performed in a first video production system at a first location (Vienneau - Paragraph 0102 teaches storing second metadata for transmission along with the broadcast. Second metadata is graphics metadata defined for use by the distributor as taught in 0065. Metadata and broadcast image data is sent together from the Broadcaster 101 [first entity] shown in Fig. 1 as taught in paragraph 0105 [distributor 103 shown in Fig. 1 receiving broadcast signals from the broadcaster 101]. Ramaswamy - Paragraph 0019, 022,

0027-0028 teaches embedding metadata into a video) and said reading and inserting steps are performed in a second video system at a second location remote from said first location (Vienneau - Paragraph 0106 teaches combining the broadcast image data with the rendered broadcast image data defined by metadata 922 and executable graphic file 912. The graphics specified by second metadata 922 is rendered along with broadcast image data [inserting pixel data]. These steps are performed by parts found in Fig. 29, all of which makes up a part of the distributor 103 [second entity] shown in Fig. 1. Paragraph 0049-0050 teaches that includes broadcasting stations 101 that may exist in geographically separate locations [first location]. The distributor 104 receives content from the broadcast station 101 via a satellite and redistributes these programs locally. The distributor is at a second location remote from the first video system since content signals are transmitted via satellite to multiple distributors that distribute content locally in their respective areas), the method further comprising the step of transmitting the processed video signal from said first video production system to said second video production system (Vienneau - Paragraph 0105 teaches distributor 103 [second entity] receiving broadcast signals from the broadcaster 101 [first entity] shown in Fig. 1).

Consider **claim 12**, Vienneau and Ramaswamy teach further comprising the step of storing the processed video signal and retrieving

the processed video signal from, said reading and inserting steps being performed on the processed video signal after said retrieving step storage (Vienneau - Part numbers refer to Fig. 29. Paragraph 0106 teaches the broadcast image data being sent to the graphics processor 2909 from the satellite decoder 2901. It is inherent that graphics processors either utilize dedicated RAM provided on the graphics processor itself or the computer systems RAM 2904. RAM is used for temporary storage of the video signal composed of image files. The video signal is stored in RAM [storage] and then retrieved to be rendered with animation objects as further described in paragraph 0106. The broadcast image data is then combined with animation objects [inserting] defined by second metadata [reading]).

Consider **claim 13**, Vienneau and Ramaswamy teach further comprising the step of modifying the graphics metadata read from the processed video signal to provide modified graphics metadata based in part on the graphics metadata in said processed video signal, said step of inserting pixel data including inserting pixel data constituting a graphic as specified by the modified graphics metadata (Vienneau - Paragraph 0113 teaches that the animation designer can provide a set of animated objects that can be customized by modification to second metadata 722 shown in Fig. 7. An example is given from modifying graphics metadata, the distributor's logo can be texture mapped onto an animated rotating

surface. The pixel data of the distributor's logo is still inserted as taught in paragraphs 0111-0112 and by modifying second metadata a graphic like that of a logo on a rotating surface can be the inserted pixel data corresponding to modified metadata).

Consider **claim 14**, Vienneau and Ramaswamy teach wherein said modifying step is performed automatically (Vienneau - Paragraph 0126 teaches that distributor customization will typically be automated).

Consider **claim 15**, Vienneau and Ramaswamy teach wherein said modifying step includes replacing at least some of said graphics metadata in said processed video signal with modification data (Vienneau - Paragraph 0113 teaches that second metadata 722 shown in Fig. 7 can be modified. Parameters of the second metadata can be modified similarly to the process described in 0074. Since both metadata is used to define graphics parameters initially they contain default values that are specified. However, these default values can be adjusted, replacing the initial default values resulting in customization).

Consider **claim 16**, Vienneau and Ramaswamy teach wherein said modifying step includes adding modification data to the graphics metadata in said processed video signal (Vienneau - Paragraph 0113 teaches that second metadata 722 shown in Fig. 7 can be modified. Paragraph 0105

teaches that metafile 921 shown in Fig. 9 contains modifiable parameters. Parameters of the second metadata can be modified similarly to the process described in 0074. Since both metadata is used to define graphics parameters initially they contain default values that are specified. However, these default values can be adjusted, replacing the initial default values resulting in customization).

Consider **claim 17**, Vienneau and Ramaswamy teach wherein said graphics metadata in said processed video signal include data specifying a location for a logotype and said modifying step includes combining said location data with modification data specifying a particular logotype (Vienneau - Paragraph 0013 teaches a distributor region 3301 shown in Fig. 3 which was predefined at the broadcasting side is currently on the top left. Through steps taught in 0110-0112 a distributor's logo is pixel data inserted in the distributor region 3301 as specified by the parsing of second metadata received. Second metadata contains location data in order for the distributor to know where to render their logo on the corresponding video).

Consider **claim 18**, Vienneau and Ramaswamy teach wherein the inserted graphics includes computer generated graphics (Vienneau - Paragraph 0107 teaches two-dimensional graphical distributor logo and also data for advertisements. Paragraph 0113 teaches modifying graphics

metadata allowing more complex animations at the distributor's side. These inserted graphics are computer generated since the logo can be textured mapped to rotating surfaces that were predefined by metadata).

Consider **claim 19**, Vienneau and Ramaswamy teach wherein the inserted graphics include one or more style components (Vienneau - Paragraph 0113 teaches that each distributor can have their own logo where each screen could be different for each distributor 102, 103, 104 shown in Fig. 1. One or more style components can be seen because animations can be customized according to the needs of each distributor resulting in inserted graphics having different graphics, animated elements, logos, etc).

Consider **claim 20**, Vienneau and Ramaswamy teach wherein the inserted graphics include one or more format components (Vienneau - Paragraph 0058 teaches that the distributor region can vary in size [format component]. The variation is size is a format component that can affect the size of the advertisements that can be displayed by the distributor. They can be made larger to accommodate advertisements. Paragraph 0107 teaches that data pertaining to distributor graphical logos and advertisements are provided for rendering).

Consider **claim 23**, Vienneau and Ramaswamy teach further comprising the step of modifying the graphics metadata read from the processed video signal to provide modified graphics metadata based in part on the graphics metadata in said processed video signal, said step of inserting pixel data including inserting pixel data as specified by the modified graphics metadata (Vienneau - Paragraph 0113 teaches that the animation designer can provide a set of animated objects that can be customized by modification to second metadata 722 shown in Fig. 7. An example is given from modifying graphics metadata, the distributor's logo can be texture mapped onto an animated rotating surface. The pixel data of the distributor's logo is still inserted as taught in paragraphs 0111-0112 and by modifying second metadata a graphic like that of a logo on a rotating surface can be the inserted pixel data corresponding to modified metadata).

Consider **claim 24**, Vienneau and Ramaswamy teach wherein said modifying step includes replacing at least some of said graphics metadata in said processed video signal with modification data (Vienneau - Paragraph 0113 teaches that second metadata 722 shown in Fig. 7 can be modified. Parameters of the second metadata can be modified similarly to the process described in 0074. Since both metadata is used to define graphics parameters initially they contain default values that are

specified. However, these default values can be adjusted, replacing the initial default values resulting in customization).

Consider **claim 25**, Vienneau and Ramaswamy teach wherein said modifying step includes adding modification data to the graphics metadata in said processed video signal (Vienneau - Paragraph 0113 teaches that second metadata 722 shown in Fig. 7 can be modified. Paragraph 0105 teaches that metafile 921 shown in Fig. 9 contains modifiable parameters. Parameters of the second metadata can be modified similarly to the process described in 0074. Since both metadata is used to define graphics parameters initially they contain default values that are specified. However, these default values can be adjusted, replacing the initial default values resulting in customization).

Consider **claim 27**, Vienneau and Ramaswamy teach wherein said input is operative to accept said input signal as a serial digital video signal (Vienneau - Paragraph 0100 teaches receiving video input signal as a serial data) and said character generator subsystem is operative to embed the graphics metadata in the serial digital video signal (Vienneau - Paragraph 0102 teaches second metadata is stored for transmission along with the broadcast from broadcaster 101 shown in Fig. 1. Paragraph 0105 teaches that the broadcast and metadata files received by the distributor 103 shown in Fig. 1 demodulates signals from the

broadcaster. Since paragraph 0102 teaches that second metadata file is stored for transmission along with the broadcast, second metadata file and video broadcast data are sent together [graphics metadata embedded in serial digital signal] to the distributor. This processed signal output is connected to the character generator subsystem made up of Animation Design 201 and TV Studio 204 shown in Fig. 2. This processed signal is sent to the broadcast transmitter 205 to be sent to the distributor).

Consider **claim 31**, Vienneau and Ramaswamy teach one or more second video processing systems (Vienneau - Fig. 1, Distributors [second video processing system] 102, 103, and 104. Paragraph 0106 teaches distributors combining broadcast image data with other rendered animation objects [video processing]) and a communications network connected between said processed signal output and said one or more second video processing systems for conveying said processed signal output to said one or more second video processing systems (Vienneau - Paragraph 0102 teaches storing second metadata for transmission along with the broadcast. Both metadata and broadcast [processed signal] is transmitted together via the Broadcast transmitter 205 shown in Fig. 2. Paragraph 0105 teaches a satellite receiving antenna 2801 located at the distributor for receiving broadcast signals from the broadcaster).

Consider **claim 32**, Vienneau and Ramaswamy teach wherein at least one of said one or more second video processing systems is operative to read the graphics metadata embedded in the processed video signal and to insert pixel data constituting graphics into the processed video signal so as to form a final signal incorporating one or more visible graphics, said inserted pixel data being based at least in part on the graphics metadata in said processed video signal (Vienneau - Paragraph 0105 teaches receiving the broadcast signal [processed video signal] and demodulating the signal for metafiles, cues, etc. with receiver 2802 shown in Fig. 29. Paragraph 0106 teaches combining the broadcast image data with the rendered broadcast image data defined by metadata 922 and executable graphic file 912. The graphics specified by second metadata 922 is rendered along with broadcast image data [inserting pixel data]. In addition to the rendering further data is received and encoded by the graphics processor along with the newly generated image data [processes video signal with pixel data inserted] and sent to the cable transmitter 2809 [final signal with one or more visible graphics]).

Consider **claim 33**, Vienneau and Ramaswamy teach wherein said at least one of said one or more second video processing systems is operative to modify the graphics metadata read from the processed video signal to provide modified graphics metadata based in part on the graphics metadata in said processed video signal, and to inserting pixel

data as specified by the modified graphics metadata (Vienneau - Paragraph 0113 teaches that the animation designer can provide a set of animated objects that can be customized by modification to second metadata 722 shown in Fig. 7. An example is given from modifying graphics metadata, the distributor's logo can be texture mapped onto an animated rotating surface. The pixel data of the distributor's logo is still inserted as taught in paragraphs 0111-0112 and by modifying second metadata a graphic like that of a logo on a rotating surface can be the inserted pixel data corresponding to modified metadata).

7. **Claims 3, 5, 28-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Vienneau et al. (2002/0157105), in view of Ramaswamy (US 2004/0003394), and further in view of SRINIVASAN et al. (US 2001/0023436).

Consider **claim 3**, Vienneau and Ramaswamy do not explicitly teach wherein the video signal is an analog composite video signal and the graphics metadata is inserted into one or more vertical blanking intervals of the video signal.

In an analogous art, SRINIVASAN teaches wherein the video signal is an analog composite video signal (Paragraph 0047 teaches an authoring station 11 shown in Fig. 1 that can process various media streams including analog) and the graphics metadata is inserted into one or more vertical blanking intervals of the video signal (Paragraph 0091 teaches inserting the annotation data stream 55a [graphics metadata]

shown in Fig. 7 in the Vertical Blanking Interval and synchronized with the video. Annotation data stream 55 is further described in paragraph 0089-0090 containing image tracking coordinates and annotations as a resultant output from authoring system 51 shown in Fig. 7).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Vienneau and Ramaswamy to include the input video signal as an analog video signal where metadata is inserted into vertical blanking intervals, as taught by SRINIVASAN, for the advantage of being able to annotate one or more main video streams, either analog or digital (SRINIVASAN - Paragraph 0024) and so that the annotation data stream and video signal would not have to be synchronized at the receiver (SRINIVASAN - Paragraph 0090).

Consider **claim 5**, Vienneau and Ramaswamy do not explicitly teach wherein the video signal is an MPEG compressed stream.

In an analogous art, SRINIVASAN teaches wherein the video signal is an MPEG compressed stream (Paragraph 0047 teaches an authoring station 11 shown in Fig. 1 that can process various media streams including MPEG. MPEG is a compression standard).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Vienneau and Ramaswamy to include the input video signal as an MPEG compressed stream, as taught by SRINIVASAN, for the advantage of being able to annotate one or more

main video streams, either analog or digital (SRINIVASAN - Paragraph 0024).

Consider **claim 28**, Vienneau and Ramaswamy do not explicitly teach wherein said input is operative to accept said input signal in the form of an analog video signal.

In an analogous art, SRINIVASAN teaches wherein said input is operative to accept said input signal in the form of an analog video signal (Paragraph 0047 teaches an authoring station 11 shown in Fig. 1 that can process various media streams including analog).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Vienneau and Ramaswamy to include accepting input video signal as an analog video signal, as taught by SRINIVASAN, for the advantage of being able to annotate one or more main video streams, either analog or digital (SRINIVASAN - Paragraph 0024) and so that the annotation data stream and video signal would not have to be synchronized at the receiver (SRINIVASAN - Paragraph 0090).

Consider **claim 29**, Vienneau and Ramaswamy do not explicitly teach wherein said character generator subsystem is operative to insert said graphics metadata into one or more video blanking intervals of the analog video signal.

In an analogous art, SRINIVASAN teaches wherein said character generator subsystem is operative to insert said graphics metadata into one or more video blanking intervals of the analog video signal (Paragraph 0091 teaches inserting the annotation data stream 55a [graphics metadata] shown in Fig. 7 in the Vertical Blanking Interval and synchronized with the video. Annotation data stream 55 is further described in paragraph 0089-0090 containing image tracking coordinates and annotations as a resultant output from authoring system 51 shown in Fig. 7).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Vienneau and Ramaswamy to include metadata inserted into vertical blanking intervals of the analog video signal, as taught by SRINIVASAN, for the advantage of not needing the annotation data stream and video signal to have to be synchronized at the receiver (SRINIVASAN - Paragraph 0090) reducing the processing load at the receiving end.

Consider **claim 30**, Vienneau and Ramaswamy do not explicitly teach wherein the said input is operative to accept said input video signal in the form of an MPEG compressed stream.

In an analogous art, SRINIVASAN teaches wherein the video signal is an MPEG compressed stream wherein the said input is operative to accept said input video signal in the form of an MPEG compressed stream

(Paragraph 0047 teaches an authoring station 11 shown in Fig. 1 that can process various media streams including MPEG. MPEG is a compression standard).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Vienneau and Ramaswamy to include accepting input video signal in the form of an MPEG compressed stream, as taught by SRINIVASAN, for the advantage of being able to annotate one or more main video streams, either analog or digital (SRINIVASAN - Paragraph 0024).

8. **Claim 34** is rejected under 35 U.S.C. 103(a) as being unpatentable over Vienneau et al. (2002/0157105), in view of Ramaswamy (US 2004/0003394), and further in view of Puente et al. (2003/0033606).

Consider **claim 34**, Vienneau and Ramaswamy does not explicitly teach further comprising an archival storage element in communication with said output for recording the said processed video signal.

In an analogous art, Puente teaches further comprising an archival storage element in communication with said output for recording the said processed video signal (Paragraph 0026 where an HTML page associating graphics and text of the media presentation is integrated with the video, audio and metadata [processed video signal]. The resulting file is then stored at a server computer) [archival storage element].

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system in Vienneau and Ramaswamy to include an archival storage element for recording the processed video signal, as taught by Puente, for the advantage of allowing the media presentation to be accessed and searched using encoded metadata (Puente - Paragraph 0026).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason K. Lin whose telephone number is

(571)270-1446. The examiner can normally be reached on Mon-Fri, 9:00AM-6:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571)272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason Lin

10/10/2007

CHRISTOPHER GRANT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600